FOLIA TAXONOMICA 13. *PASSIFLORA CURVA* (PASSIFLORACEAE), A NEW SPECIES FROM FRENCH GUIANA IN SUBGENUS *PASSIFLORA* SUPERSECTION *COCCINEA*

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ABSTRACT

A new species, **Passiflora curva,** is described in subgenus *Passiflora* supersection *Coccinea*. It was collected in French Guiana, in the lower Sinnamary River basin. *Passiflora curva* is easily set apart from the other species of the supersection by its leaves with margins crenate toward the base and serrate toward the apex, its bracts less than 3 cm long and its flowers with a straw-colored tube, and the outer corona filaments white and erect.

RÉSUMÉ

Une espèce nouvelle, **Passiflora curva,** est décrite du sous-genre *Passiflora* supersection *Coccinea*. Elle a été récoltée en Guyane, dans le bassin de la basse Sinnamary. *Passiflora curva* est facile à séparer des autres espèces de la supersection par ses feuilles à marge crénée vers la base et serrée vers l'apex, ses bractées longues de moins de 3 cm, ses fleurs avec un tube beige et le verticille extérieur de la couronne blanc et érigé.

During a field trip in French Guiana in September 2008, I had the opportunity to visit the type locality of *Passiflora aimae* Annonay & Feuillet (1998) and collected two good specimens of another species that clearly belong also in *Passiflora* supersect. *Coccinea* Feuillet & J.M. MacDougal. The new species, *P. curva,* and *P. aimae* differ in several details. Most interesting characters of the new species are the straw color of the bud and floral tube, and the morphology of the two-row corona in which the outer row of filaments is erect, leaning neither inward nor outward. Pictures of both species have been published; *Passiflora aimae* in Ulmer & MacDougal (2004: pl. 161, p. 212; photo H. Annonay); and *Passiflora curva* (as *P. aimae)* in Ulmer & MacDougal (2004: pl. 8, p. 165; photo H. Gelewsky) and in Ulmer & Ulmer (2005: p. 9; photo H. Gelewsky). Some have been uploaded and are available on the web: *Passiflora aimae* on C. Houel's website (photo C. Houel); and *Passiflora curva* on C. Houel's web site (as "sp. Distephana"; photo C. Houel); and on Flickr in cpf1's photostream (as *P. curva*; photo C. Feuillet). Christian Houel ("Collection Nationale de Passiflores", France) became aware there were two different species when he found the two growing side by side. As far as I know, encounters with this species by various persons previous to the type collection were not documented by herbarium specimens, but it may be in cultivation in Europe or in Martinique where H. Annonay has his collection.

Passiflora curva Feuillet, sp. nov. (**Fig. 1**) TYPE: FRENCH GUIANA: lower Sinnamary River basin, ca. 20 km SW of Sinnamary, on the roadside of Route de St Élie (D 21), 13 km S of the road from Cayenne to St.-Laurent-du-Maroni (N 1), 5°18'20"N 53°02'21"W, 35 m, 28 Sep 2008, fl., *Feuillet 17049* (HOLOTYPE: US; ISOTYPES: BRIT, CAY).

Passiflora curva in subg. *Passiflora* supersect. *Coccinea* pertinens; inter species hujus supersectionis foliis margine laxe leviterque crenatis (ab basi ad circa medium) vel serratis (ab circa medio ad apicem), bracteis minus 3 cm longis, hypanthio extus stramineo differt.

Climber with tendrils; plant with short trichomes on vegetative parts, the outide of the sepals, the androgynophore, and the gynoecium, the flower otherwise glabrous. Stem reddish, somewhat 5-angular, reaching at least 6 m long. Tendrils axillary, reddish. Stipules setaceous, reddish, 5–6 mm long. Leaves alternate petiole 1–1.8 cm long, reddish, with a pair of glands at the base, glands round and plump, green when young becoming reddish; blade ovate, 7–12 × 3.5–7 cm, base truncate to slightly cordate and shortly cune-

ate, apex rounded to slightly acute, short acuminate, margin reddish-brown, slightly and loosely crenate in basal third and serrate in apical two thirds, adaxial surface yellowish-green when young becoming dark green, abaxially pale grey becoming light green, veins reddish, 5–6 veins each side of the midrib. Peduncle axillary, solitary, erect, 4–5 cm long, reddish; bracts (1 bract & 2 bracteoles) verticillate, inserted 1 mm below the joint, similar in shape and size, 1.5–2.2 × 0.6–0.8 cm, red, green at base, 4–5 pairs of glands at margin, glands round, green, larger at base; above the joint, floral stipe 0.4–0.5 cm long. Flowers erect floral tube campanulate, base invaginate around the apex of the stipe, forming inside a 10-lobed nectar chamber at the bottom, 10–12 cm long, greenish straw-colored suffused with pink and with 10 green veins outside, inside pink to red; sepals red but the parts exposed in the bud straw-colored abaxially, narrow oblong, carinate, with a 2–4 mm long subterminal red awn curved inward, round at apex, 3 × 0.6 cm; petals red all over, without carina or awn, otherwise similar to sepals; corona in 2 rows, the outer row of white erect filaments about 1 cm long, laterally flattened, subulate, apex reaching the level of the base of the stamens, but not leaning on the androgynophore, inner row about as long, membranous in the basal half, oblique toward the androgynophore, white suffused with pink, and filamentous in the apical half, white, pointing toward the base of the tube and leaning on the androgynophore, then becoming straight and erect; operculum born 2/3 up the tube, membranous, parallel to the inner corona, bent about 2/3 from the base, short fimbriate at margin, white suffused with pink; nectary ring on the bottom of the tube reddish; limen pinkish, membranous, toothed at margin, surrounding the base of the androgynophore, curved outward at margin; androgynophore 2.5 cm long, white at base, cream dotted with red above; stamens 5, shortly fused at base, hiding the short gynophore and the base of the ovary, filaments dorsiventrally flattened, 15 × 1.5 mm, cream heavily spotted with red, emarginate at apex, anthers 9 × 2.5 mm, nearly rectangular, dorsifixed, held transversly, white, slightly greenish-cream near margin, pollen white; ovary ovoid, 9 × 2 mm, cream, styles slightly S-shaped, 6–7 mm long, diameter slightly increasing toward the apex, stigmas globular, 1.5–2 mm in diam., stigmatic surface cream, otherwise bright red. Fruits not seen; (the following from a photograph by C. Houel) unripe fruit green, dotted with white, ovoid.

By its red bracts with marginal glands, red-faced flowers, white erect straight outer corona filaments, and leaves crenate to serrate and glandular at margin, *P. curva* belongs in subg. *Passiflora* supersect. *Coccinea*. It differs from the other species by the combination of the following characters: the leaf blade margins are loosely and slightly serrate in the apical half and loosely and slightly crenate in the basal half, the bracts are much shorter than the flowers, the floral tube and the parts of the calyx exposed in the bud are straw-colored, and the corona has 2 rows, the outer row erect and comprised of white filaments not leaning on the androgynophore. Lastly, the inner corona row partly membranous, initially held horizontally (unpublished photograph) and later upward oblique. In both stages it is bent in the middle with the apical filamentous half held downward oblique, (Fig. 1, both photographs taken around 8:00 am, 28 Sep 2008). Ultimately it unfolds to become erect and parallel to the outer row (unpublished drawing of the paratype by J. Vanderplank, around 10:30 am, 17 Mar 2009). The basal membrane of inner row of the corona is an effective, although temporary, barrier keeping pollinators or nectar robbers away from the second obstacle, the operculum, on the way to the nectar. The flowers of the type collection had the inner row of the corona bent when split open and placed in the loosely tied field press, but the filaments straightened before being placed in the drier.

In the last published key of the supersection (Feuillet 2007), *P. curva* would be in a new third arm of bracket 4, reading: "Leaf margin slightly crenate in basal third and slightly serrate in distal two third," as opposed to "Leaf margin crenate" or "Leaf margin dentate or serrate." The second group includes 9 species with largely or densely serrate or biserrate leaf margins. The first group includes 2 species with crenate leaf margins from the same small area of forested hills west of the Lower Sinnamary River, *P. aimae* with a much shorter corona, 0.5–0.6 mm versus1 cm, whose inner row is red, and *P. longicuspis* Vanderpl. with a much longer corona, 1.8–2.4 cm, in 3 rows whose 2 outside rows are red or deep purple, and both with the corona filaments leaning on the androgynophore.

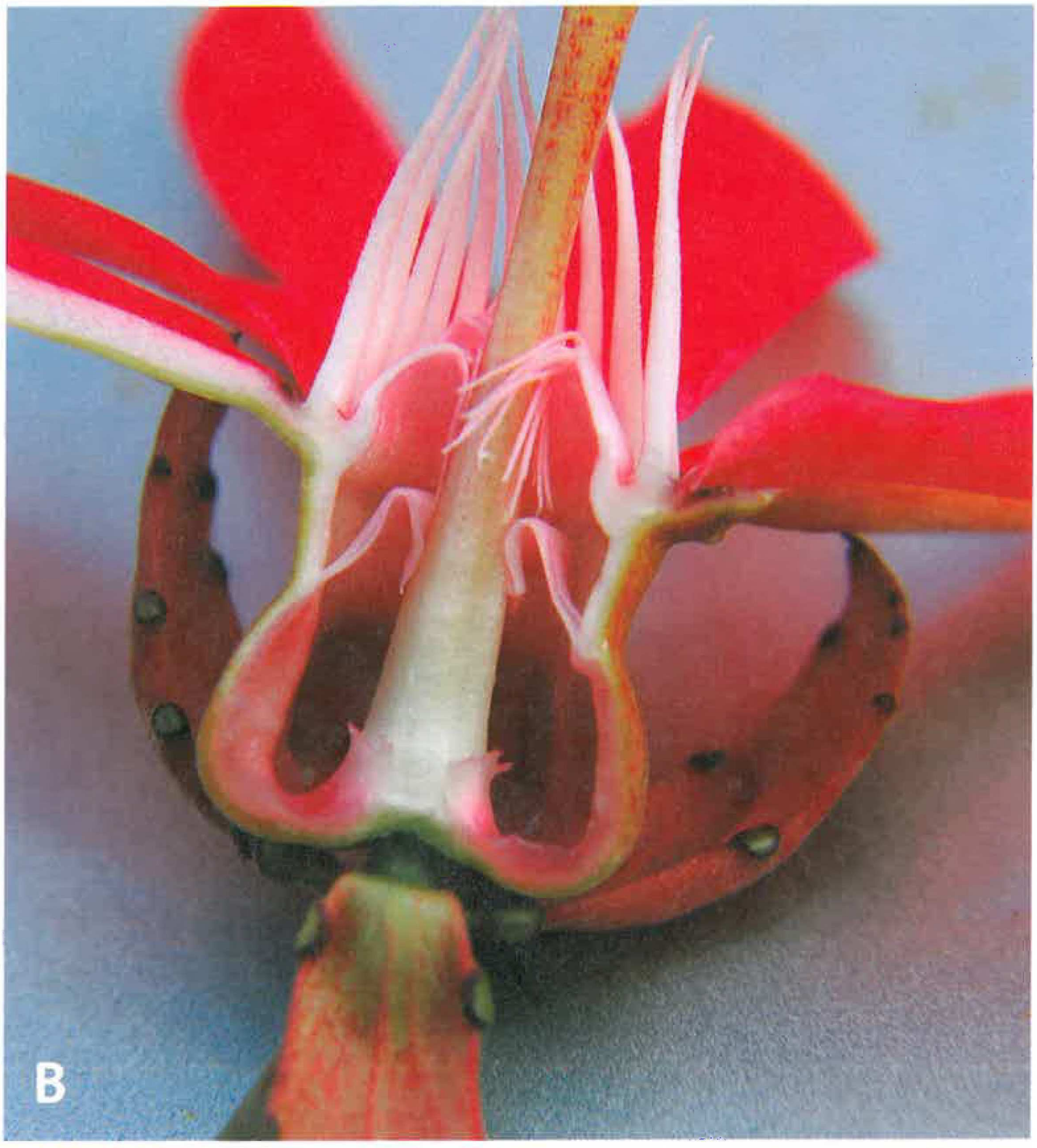

Fig. 1. *Passiflora curva*. A. Flower buds beginning to open; B. Flower (longitudinal cut). Both photographs of the type plant, *Feuillet 17049*. (Photographs C. Feuillet)

Distribution and phenology.—*Passiflora curva* is known only from the type locality west of the Sinnamary River, 13 km south of Road N 1, on the first hills south of the littoral savannas. It was found blooming in March and September.

Etymology.—The epithet, from the Latin adjective *curvus*, means bent, referring to the morphology of the inner row of the corona at early anthesis.

Paratype: **FRENCH GUIANA:** ca. 20 km SW of Sinnamary, on the roadside of Piste de St Élie, 13 km from Rd 1, 5° 18'20"N 53° 02'21"W, 35 m, 17 Mar 2009, fl., *R.J.R. Vanderplank, C. Feuillet & M. Vecchia 1620/09* (CAY, Nat Coll. Passiflora UK).

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